

NOTES ON THE DISTRIBUTION, HOSTS AND
BIONOMICS OF SOME PACIFIC
NORTHWEST CERAMBYCIDAE (COLEOPTERA)

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ABSTRACT

New host, bionomical, and distributional information is presented for 12 species of Pacific Northwest Cerambycidae, primarily from Oregon. Species treated include: *Anoplodera canadensis* Olivier, *Encyclops californica* Van Dyke, *Hesperanoplum antennatum* (Linsley), *Holopleura marginata* LeConte, *Leptalia macilenta* (Mannerheim), *Neoclytus interruptus* LeConte, *N. provoanus* Casey, *N. resplendens* Linsley, *Plectrura spinicauda* Mannerheim, *Prionus integer* LeConte, *Purpuricenius dimidiatus* LeConte and *Tetraopes annulatus* LeConte. *N. interruptus* is recorded as prey of *Stenopogon inquinatus* Loew (Diptera:Asilidae).

The publication of Hatch (1971), "The Beetles of the Pacific Northwest", and the continuing revisionary work of J. A. Chemsak and E. G. Linsley on the Cerambycidae of North America have revealed that we possess some pertinent new data on several species of Pacific Northwest Cerambycidae. This data, presented herein, is largely a result of insect survey and detection activities for the Oregon Department of Agriculture during the past 5 years. Specimens of each species treated in this paper are deposited in the collections of the Oregon Department of Agriculture and/or the authors, unless otherwise indicated.

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Anoplodera canadensis Olivier

On June 23, 1971, sections of old logs and dead, standing trunks of large Oregon white oak, *Quercus garryana* Dougl., were collected 2 miles northwest of Suver, Polk Co., Oregon, and placed in a large screened cage in a greenhouse at Salem, Oregon. Beetles emerged as follows: 1 male, 22-VII-1971; 2 females, 31-VII-1971, 9-IX-1971; 4 females, 26-VII-1972, 6-VIII-1972 (R. L. Westcott). None emerged during 1973. This is a new host record. *A. canadensis* has not previously been recorded as reared from any hardwood, but Gardiner (1970) observed ovipositing females on *Acer* and *Ostrya* in eastern Canada. Additional collecting records for western Oregon are: Polk Co.: 4 mi E Rickreall, 26-VIII-1947 (J. W. Bell); 2 mi NW Suver, 7-VIII & 2-IX-1968 (R. L. Westcott). Marion Co.: Hopmere, 26-VIII-1971 (R. L. Penrose). All specimens are of the red form, ab. *erythroptera* Kirby, fide Hatch (1971).

Encyclops californica Van Dyke

Linsley and Chemsak (1972) listed the distribution of this lepturine as "coastal northern California". This may now be expanded to include west-central Oregon based on a single specimen present in the Oregon State University Collection. Collection data are as follows: Lane Co., Blue River, H. J. Andrews Experimental Forest, mid-age Douglas-fir stand, 10-VII-1972, IBP Biome Survey, beating *Tsuga*.

Hesperanoplum antennatum (Linsley)

This nocturnal longhorn, previously recorded only from California (Linsley, 1962), has been collected at a southwestern Oregon locality. Single specimens were taken in a blacklight trap at Medford, Jackson Co., 12-VII and 23-VIII-1970 (K. J. Goeden); 12-VI-1969 (L. G. Gentner, K. J. Goeden).

Holopleura marginata LeConte

Bedard (1938) first recorded Douglas-fir as a host for this species, stating that "adults were reared from branches during May". Linsley (1962) and Hatch (1971), following Linsley, questioned this association, possibly since Bedard gave no specific locality for his record. However, *H. marginata* has been collected in southeastern British Columbia (Linsley, 1962). This, coupled with the following observations, indicate there is no reason to doubt that Bedard reared this species from Douglas-fir in the northern Rocky Mountain region.

Teneral adults were collected from dead Douglas-fir, *Pseudotsuga menziesii* (Mirb.) Franco., 1 mile east of Buell, Polk Co., Oregon, 11-IV-1971 (R. L. Penrose). Specimens were found in the terminal trunk sections of 15 to 20 foot tall standing trees and in smaller, 0.75 to 1 inch diameter lower, shaded out branches which were still attached to larger living trees. An additional collection from this host has been made at Stageroad Pass, Josephine Co., 28-IV-1971 (R. L. Penrose).

Observations made at Buell indicate that the larvae deeply score both the inner bark and outer sapwood of recently dead branches, constructing a wide gallery which is tightly packed with coarse frass. Pupation takes place in an elongate tunnel constructed in the heartwood and oriented parallel to the longitudinal axis. Both ends of the cell are plugged with frass. The outer plug is longest and composed of the coarsest wood fibers. This plug is often well removed from the pupa, sometimes up to 1.5 inches, plugging the gallery where the larva entered the sapwood.

Leptalia macilenta (Mannerheim)

Chemsak and Powell (1971) discussed the mating behavior and habits of the immatures of this species on one of its hosts, *Umbellularia californica* (H. & A.) Nutt., in the central Coast Range of California. *Alnus* and *Salix* were also listed as host genera.

In Oregon, 2 previously unreported host plant associations were discovered during the spring of 1971. Teneral adults and pupae were collected April 17 under the bark of decayed logs of bitter cherry, *Prunus emarginata* (Dougl.) Walp., at Salem, Marion Co., and adults were reared from pupae collected

April 5 from portions of a dead trunk section of big leaf maple, *Acer macrophyllum* Pursh., in McDonald Forest, near Corvallis, Benton Co.

Neoclytus interruptus LeConte

The first Pacific Northwest record for this species is given by Hatch (1971) and is based on a single specimen from Seattle, Washington. This specimen has been examined and its identity verified. The occurrence of *N. interruptus* in an area of such differing habitat, so far removed from the nearest known localities, suggests the possibility of mislabeling. Linsley (1964) gives the range of this species as "coastal California from Humboldt Co. south to Ventura Co." The first records for Oregon are: 10 mi ENE Ashland, Jackson Co., 14-VIII-1968 (K. J. Goeden); 2 mi SW Keno, Klamath Co., 2-VIII-1968 (R. L. Westcott). Both are based on single specimens, the latter being taken as prey of the robber fly, *Stenopogon inquinatus* Loew.

Neoclytus provoanus Casey

Linsley (1964) recorded this species from the Pacific Northwest, but no specific locality data exists in the literature confirming the occurrence of this clytine in Oregon or Idaho. Cited localities are in Utah, California, Washington and British Columbia. Three specimens from Idaho in the University of Idaho Research Collection, Moscow, bear the following data: Latah Co.: Laird Park, 3-VII-1963; 4.9 mi S Juliaetta, 19-VII-1964 (E. R. Logan). Twin Falls Co.: Rock Creek, 12-IX-1961. A single specimen was seen from Oregon: Crook Co.: SE $\frac{1}{4}$ Sec. 19, T13S, R19E, Ochoco National Forest, 16-VII-1974, on yarrow flower (R. L. Penrose).

Neoclytus resplendens Linsley

This striking beetle is recorded for the first time from Oregon (and the Pacific Northwest) as follows: 1 male, 10 mi N Grants Pass, Josephine Co., 15-VII-1969, sitting on *Arctostaphylos* sp. (J. M. Davidson); 1 female, same locality, 21-VII-1970, flying between *Ceanothus cuneatus* and *Arctostaphylos viscida* (R. L. Westcott). Linsley (1964) listed host plants as "*Quercus* spp." At least 2 species of oak occur at the above locality.

Plectrura spinicauda Mannerheim

Forty-five specimens of this strange lamiine were collected 4 miles west of Doty, Lewis Co., Washington, 22 & 23-VIII-1970 (R. L. Westcott). Most were collected from vine maple, *Acer circinatum*, (a few on nearby weeds) where they were well camouflaged on dead leaves, twigs, etc. The beetles appeared to favor certain plants, many of which were small, either young or with regrowth from browsing or other damage. On these plants the apical portions of many stems, mostly of new growth, had much of the bark chewed away. This feeding damage was noted on many maples in the area even when no beetles could be found. Several adult *P. spinicauda* were kept alive in the lab and supplied with young twigs of vine maple. Observations confirmed that the twig damage seen in the field was that of *P. spinicauda* and that feeding takes place almost entirely during darkness.

Prionus (Homaesthesis) integer LeConte

In the Pacific Northwest this prionine has previously been recorded only from southern Idaho (Barr and Penrose, 1969). Its range now may be expanded to include adjacent regions of eastern Oregon. Single specimens were collected under street lights in Ontario, Malheur Co., 29-VII-1970 (R. L. Penrose, R. L. Westcott); 20-VII-1968 (K. J. Goeden).

Purpuricenus dimidiatus LeConte

The distribution of this rare and beautiful purpuricenine was restricted to California by Linsley (1962). Hatch (1971) provided the first Pacific Northwest record based on a collection from northeastern Oregon (LaGrande airport). Linsley (1962) gave as hosts oak and willow. Oak does not occur naturally near LaGrande and, unless the specimen was a hitchhiker, this longhorn likely utilizes willow in the area. Additional records are from western Oregon and include: 1 female, Hood River, Oak Grove District, Hood River Co., 24-VII-1962, in bait pot (F. E. Ellertson; Mid-Columbia Expt. Sta. Coll.); 1 female, Siskiyou Pass, Jackson Co., 8-VII-1970, on dead twig of *Quercus* sp. (R. L. Westcott); 1 male, 2 mi E Grants Pass, Josephine Co., 7-VII-1970, in Oriental fruit moth bait pot (R. L. Westcott).

Bait formulations containing terpinyl acetate, brown sugar and yeast seem to be quite attractive and may possibly be used to collect adults in numbers.

Tetraopes annulatus LeConte

A single specimen from Strevell, Cassia Co., Idaho, 24-VIII-1972 (G. F. Knowlton, Utah State Univ. Coll.), represents a new state record. The closest recorded locality is 159 miles to the southeast in Wasatch Co., Utah (Chemsak, 1963).

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